HOW TO GROW PSYCHEDELIC MUSHROOMS

Materials Needed: - a sporeprint from a strain of psychedelic mushrooms. (make sure it's the real thing, and that it's not contaminated with anything! Dust, for example.) - a pressure cooker, any size, but preferably one with 17 qt. (liquid) capacity. (this is the most expensive item, but it's a necessity. Borrow, rent, buy, or steal one.) - one dozen (or more) new canning jars, 1 quart size, pref. wide mouthed, with lids. - a box/bag of brown rice--NOT white rice. Long grain/wild rice might also be a good growing medium--maybe even better than regular brown rice, although I'm not positive about this. I once used a half-and-half mix of brown rice and Long grain wild rice which worked fine. However, a possible disadvantage to using the long grain/wild rice is that any contaminants such as dark-colored molds will be more difficult to spot in the growing medium. - something to scrape the spores off the print into the jar... You want something like a stiff metal wire with a handle, so you can heat the end red hot in a flame to sterilize it without burning your fingers. I find that a probe from a Biology dissection kit works wonderfully. - a flame source. An alcohol lamp is not hard to make out of a small jar filled with rubbing alcohol, with a cotton ball as a wick. I suppose you could just use a lighter, but i prefer making an alcohol lamp--just make sure you don't burn your place down!! - a clean place to store your jars--should have a relatively constant temp. (the optimum temperature for starting the 'shrooms is 86 degrees F, but I have found room temperature to work fairly well). Closet shelves are fine, in my experience. You want a place that's pretty dust/bug free, but you don't want the storage area to be airtight, as shrooms do have to breathe just like any other living organism. Many books recommend making some kind of superclean box to store the jars in, but I've never bothered with that. Most sources of information on growing 'shrooms (this one, too) stress that everything be AS STERILE AS POSSIBLE. However, if you do have to cut a few corners you should still be successful if you just USE YOUR HEAD! which leads me to the.... - optional materials: germ-killing soap for washing hands, alcohol for sterilizing hands, etc., surgical gloves, dust masks, hair-nets, an air-filtering machine (Pollenex?), a couple 1 gallon jugs of distilled water, a spray bottle, bleach. (As you can see, this is all stuff which will help to make things a bit more sterile--definetly recommended!) PROCEDURE (finally!) This is the procedure I follow for the rice-cake method of propagating psychedelic mushrooms. I use this method for a number of reasons. One is that my first ever batch consisted of 6 jars of manure medium and 6 of the brown rice medium, I found the rice cakes produced more 'shrooms, and for a longer period of time than did the manure-filled jars. Rice has obvious advantages in that it's easy to obtain--no trekking thru a pasture looking for fresh cow-shit! Also, the manure stinks like hell when cooked in the pressure cooker! Perhaps the biggest advantage to the rice cake method is that when the rice cake no longer produces crops of 'shrooms (about 2mos.), you can actually CONSUME THE RICE CAKE ITSELF!! Given, of course, that you detect no contaminants on the rice cake (molds or bacteria). When mushroom growth stops, the rice cake can provide a trip for 2-4 people. See the end of this article for methods of ingesting mushrooms/rice cakes... PROCEDURE (i promise!) 1. Turn off the air-conditioner in the place you're going to do this...It is very important to work in a draft-free area. Turning the A/C off will allow the dust in the room to settle (including the heavier mold spores which can contaminate your rice-cake medium.) 2. Set up the pressure cooker, make sure you read the manual if you have one. You don't want the

damn pressure cooker exploding, or anything like that... Wash out the pressure cooker for good measure, and also wash the jars and lids. I wouldn't use a towel to dry them out, though, you'll just wipe germs & dust back on 'em. 3. Wash yourself, too. It's recommended that you wear a long sleeved shirt, and to pull your hair back or wear a cap or hair-net. I don't think that the dust mask would be necessary at this point, maybe later, though... 4. For each quart-size canning jar, add 1/4 cup brown rice and 1/3 - 1/2 cup water. I use the distilled water that you can buy in any grocery store--I don't trust tap water. Fill 6 or 7 jars with this mixture, or as many as will fit into your pressure cooker without stacking or jamming them in there. Place the lids on the jars, with the rubber UP, and leave the lids very loose. 5. Place the jars on the bottom rack of the pressure cooker. I recommend using the rack, that way the jars won't tip and spill as the water boils around them. Using the rack also keeps them from breaking from the heat of the burner directly below them. For a 17 quart pressure cooker, add about 3 quarts of water, but not so much that the jars start to float and tip over. Again, I use distilled water for this. 6. Now, follow the directions for sealing the pressure cooker. Some recommend that you rub a dab of cooking oil on the seal, so that it seals properly and is easier to close and open. Do it right. Do it by the book. Turn the stove on its highest setting and allow the pressure inside the cooker to build up to 15 lbs. Once the pressure inside the cooker has reached 15 lbs., you want to maintain it at that level for one complete hour. You may have to turn down the stove for brief periods so that the pressure doesn't rise to unsafe levels above 15 lbs. When the hour has passed, turn off the stove and LET THE PRESSURE COOKER COOL BEFORE OPENING! Also, don't try to rush the cooling process, as the jars may crack. 7. Just before opening the pr. cooker, wash up again, maybe use rubbing alcohol or put on surgical gloves. Now is the time for dust masks (although I usu. use my shirt to keep from breathing germs on the jars). Long sleeves and a hat or whatever is recommended because literally millions of germs are falling off your body at any given moment. Sterility and the absence of drafts are of utmost importance from here on out... (some books recommend filling a spray bottle with a 10% bleach / 90 % water solution and using it to mist the air in the room to further reduce airborne contaminants.) 8. Open the pressure cooker and let the jars cool until they're pretty close to room temp. If you remove the jars too soon, they will crack and you will have to start over with new jars, so it pays to be a little patient. You may want to tighten the lids a bit so air/germs can't contaminate the rice cakes. When the jars cool off, you're ready to go... 9. Heat your wire loop/probe/whatever until it is GLOWING RED. Put on your dust mask or pull your shirt up over your nose and mouth. 10. Lift the lid off the jar and set it down on a sterile surface, with the inside face down. OR let a friend hold the lid for you. Make sure the person has washed/sterilized his/her hands as well as you have. 11. Get out your sporeprint and hold it over the open jar at an acute angle. Use the sterilized wire loop/probe to gently scrape and tap the sporeprint to get the spores down onto the rice cake. If you can see dark specks fall onto the rice, you've done it sufficiently--anything you can see is probably several thousand spores. A sporeprint the size of a nickel can EASILY innoculate a dozen jars. 12. Screw the jar's lid on tightly and shake the jar until the rice cake breaks up. This will allow the spores to spread throughout the rice medium, thus increasing the chances for success. A good way to start the process is to inspect the jars carefully for cracks, invert the jar, and strike the lid against the heel of your hand. Next, unscrew the lid until it almost comes off-- this allows for air to get into the jar. I

usually just screw the lid on about 3/4 of a turn--just enough where it won't fall off easily. 13. When you've done this for all your jars, put the jars in a safe, clean place with a fairly constant temp., a dark place is best. In 3 days-2 weeks you should see white, fluffy mycelia appear--looks like white fuzz. Any other color of fuzz (green, black, etc.) is mold, and the jar should be disposed of. I'm not kidding about this! Certain contaminants, molds in particular, can cause illness or even death if you ingest the contaminated 'shrooms. It's better to be safe than sorry, believe me. Also be on the lookout for bacterial infections of the rice medium. These will often appear as colored (orange or pink) runny or clammy looking gunk in with the rice. These should be thrown out immediately as well. Bacterial infections may also give off a kind of putrid odor, but of course you should not be taking the lids off the jars at all during this stage. Now, the rice itself will get very soft as a result of the pressure cooking, and the initial shaking of the jar may smear gel-looking gunk all over the insides of the jar. But by comparing with the rest of the jars you should be able to tell the difference between this gunk and a bacterial infection. Like I said before, JUST USE YOUR HEAD!! 14. This is not actually another step because you're done! Just sit back and wait for nature to take its course! Shrooms are pretty much maintenance-free until fruiting starts to occur. It should take anywhere from 2 weeks to 1 month for the mycelia to completely permeate the rice medium, then it will start getting these stringy looking or fan shaped runners in the white fuzzy growth. Mushroom formation is not far off, and the jars should be getting a couple of hours of light per day--fluorescent is OK, and natural sunlight is superb, just make sure the jars don't get too warm. Of course at all stages be on the lookout for any possible contaminants in the mycelia. By the way, as the mycelia mature, they may start staining blue in spots, due to bruising, I think--so don't mistake this for a mold infection, but keep a close eye on any change in color from the white coloring. The 'shrooms first appear as tiny white pinheads and then the caps will darken (in P. cubensis) to a lovely reddish brown. When the 'shrooms are growing the lids on the jars should be very loose to allow for air exchange. Also, mushrooms grow best in an environment with a humidity of over 90%, so if you think that your 'shrooms may need a more moist environment, one thing to do is to simply use a spray bottle to spray boiled or distilled water directly onto the lids of the jars. I find that the moisture condenses inside the jars and runs down the inside of the jars, moisturizing the mycelia. You could also VERY LIGHTLY mist the surface of the rice cake if it looks dry. You don't want things TOO wet, however, as this will promote mold/bacteria growth and actually inhibit mushroom formation. Another possible method is to replace the lids with a double layer of paper towel which is misted daily--although I would think that not having an actual lid on the jar would invite contamination. Just my personal opinion. It is important that air exchange takes place in the storage area--this becomes more important as fruiting occurs, as the mycelia gives off CO_2 and needs O_2. Remember that CO_2 is heavier than normal air, so it might be good to tip the jars a few times a day to let the CO_2 dissipate out of the jar. HARVESTING: 'Shrooms are "ripe" as soon as the white membrane connecting the cap to the stem has broken somewhat, although you don't want to pick them before they have reached their full size! To harvest an individual mushroom, wash your hands well--I usu. use rubbing alcohol, too. Then take the lid off the jar and grasp the mushroom firmly near the base. You may need to use a pair of sterilized tweezers to do this, which is what I usu. do--I avoid placing germy hands inside the jars. A brisk twisting motion will help to free the

'shroom from the mycelia. If it is too difficult to harvest them using those methods, you can clean you hands, wash a small knife (preferably with anti-bacterial soap), dip the blade in alcohol, flame it for several seconds, then use the tip of the sterilized knife to cut the mushroom as close to the rice cake as possible. STORAGE AND METHODS OF INGESTION: Avoid crushing fresh mushrooms before storing them. The blue staining that is common in psychedelic mushrooms is evidence of oxidation--meaning that the active ingredients (psilocin and psilocybin) are being oxidized, too--rendering the 'shrooms inactive. While refrigeration is recommended, freezing fresh mushrooms should be avoided, since the expansion of the freezing water in the cells ruptures the cell walls and thus opens them up for oxidation. Mushrooms that were frozen while fresh may be an attractive blue color, but they are inactive.... Storage of fresh mushrooms should be in a breathable container such as a paper bag stored in a refrigerator, avoid putting fresh 'shrooms in a ziploc bag, as they may become slimy or moldy--ugh! I have heard of people also storing fresh shrooms by chopping them up and mixing them into honey--the 'shroom honey is then spread on bread or whatever and eaten. There are a few methods of drying mushrooms, although I have found dried shrooms to be MUCH weaker than fresh ones. One way to dry them is by placing them on a cookie sheet in an oven on the lowest temp. with the door slightly open. Simply drying them in sunlight is said to work also. My main problem with dried shrooms is that in my experience they are not any- where near as potent as fresh 'shrooms. I believe the reason for this is that the two psychoactive ingredients (psilocin and psilocybin) are present in equal amounts in fresh shrooms. BUT, psilocin is an unstable compound compared to psilocybin, and breaks down readily when exposed to heat and oxygen. The normal dosage for dried shrooms is 1 - 5 grams, dried. But I have never had a "trip" from dried shrooms--only with the fresh stuff. I ate 4 grams of dried 'shrooms once and only got a buzz--like being stoned or drunk. So, I like my shrooms fresh, and of course, I have that luxury since I grow my own. Whether they are dried or fresh, there are many interesting ways to ingest them. My current favorite method is to blend 3-4 fresh ones in a blender with orange juice--the effects are fantastic and the taste is tolerable. I believe this is due in part to the fact that the shrooms are almost completely liquified by the blending process, releasing the "good stuff" into the orange juice and making it more readily absorbed by the stomach. Some people may say that the vitamin C in the OJ also enhances the effects, but this may be just a myth. Another good method, one which I have used to eat the rice cakes, was to chop the rice cake (or shrooms), and brown them for JUST a few seconds in butter or margarine before pouring in an omelete mixture. Mushroom omeletes!! Not only a meal, but a good trip, and a tasty way to ingest the shrooms! (I happen to dislike the taste of shrooms by themselves) Yet another method of taking shrooms is to make a milkshake in a blender, and add the shrooms, you can make kind of a "strawberry smoothie" in this way. Remember though, that dairy products may delay/block the absorption of certain substances. Another method of ingestion is to boil the shrooms, fresh or dried (or a rice cake) in a couple cups of water for about 5 minutes (until they have sunk, one source says), and then either add a tea bag for hot tea, or make Kool-Aid with the cooled water (straining out the shrooms, of course). Sprinkling fresh or dried shrooms (chopped) onto pizza, or into spaghetti sauce is another treat--fun for a "shroom party". Since psilocin and psilocybin are soluble in both water and alcohol, soaking shrooms in any liquor will release these active ingredients into the liquor, making for a powerfully intoxicating

liquor a la' the way an "Emerald Dragon" is made with marijuana... I have tried smoking a couple dried shroom caps, but only got the slightest buzz from the VERY harsh smoke, no real effects to tell the truth. I should mention again that once shroom production has really tapered off (and you'll be able to tell) after 2 - 3 months, the rice cake can be eaten/used, if you closely examine it and decide that there is no green or black mold contaminant present. I should note that the rice cake will probably be all kinds of funky colors--a mix of white, steel blue, gray, maybe even purple in places from spores falling on it! I have ingested several scary-looking rice cakes, however, with no ill effects. Again, USE YOUR HEAD! If in doubt, toss it out--it's not worth a trip (no pun intended) to the hospital. A single rice cake is enough for 2 - 4 people to trip on, although 2 is probably the better figure. Some of my best trips were on half a rice cake chopped up and cooked in an omelete! That's what I love about the rice-cake method--when the shrooms stop growing there's no waste! Speaking of no waste, if I ever had a rice cake that I didn't want to risk eating I might use it to innoculate a compost pile or a pasture full of cow shit by inserting a small piece into each cow-pie or into the compost pile. Just think of the idea of starting a culture of wild mushrooms in your area... :-) MAKING SPORE-PRINTS: This is really easy, just wash your hands well, then take a fresh shroom and gently twist the cap off away from the stem (OR, I usually use a sterilized knife blade to cut the stem off as close to the cap as I can without touching it too much). Then place the cap, gills down, on a sterile card or piece of glass. Cover the cap and card with a clean, small container to keep drafts from blowing the spores away, and to prevent dust/contaminants from settling on the card/glass. I usu. use a small juice glass for this purpose. Leave the covered 'shroom cap on the card/glass overnight and, voila! I suggest folding the card the next day and keeping it in an airtight container (small ziploc bag) in a refrigerator. I have been told that spore prints will keep for up to a year in an airtight refrigerated (not frozen) environment. From personal experience I know that they are still viable after 3 months. Oh, by the way, try to find some use for the 'shroom cap after you've collected the spores from it--it's still psychoactive, so I'm sure you can think of something to do with it... :-)

____ APPENDIX: Additional tips for more optimal yields. Here are some additional tips, based on what I have learned from "The Mushroom Cultivator"...one thing which comes to mind is that 86 degrees F is the best temp. for starting the growth process. Something to remember though, is that the temp. INSIDE the jars will be several degrees higher than the surrounding air temp. Growth of the mycelia generates small amounts of heat. "The Mushroom Cultivator" tells all about decreasing the temperature at various stages of growth to promote fruiting (the term they use for mushroom growth). After reading "TMC", I would also advise building a simple growth chamber. This will serve a number of purposes: (1) it will create a more sterile environment, guarding against contamination. (2) it will help keep the temp. high and more constant. (3) it will help keep the humidity high and more constant. (4) it will provide a place to hide the jars, rather than just having them out on a shelf in your closet or wherever. Here's what I recommend: get a styrofoam ice chest, one that's large enough to hold the 12 jars you've got. I used one I got at Circle K for less than $5 bucks. You may want to line the inside with aluminum foil, to increase the reflection of light within the chamber, which will be good when you're ready to expose the cultures to light. At some point you'll need to cut a large hole in the lid--cut

out as much of the lid as you can, but make sure that you leave enough of a margin on it so that it still functions as a lid. Then use some kind of tape to tape Saran Wrap over the hole. Now you have a lid which allows light into the grow-box, but helps to keep out dust, mold, and other contaminants. You don't have to mess around with the lid right away, though. "TMC" suggests leaving the jars in TOTAL darkness for the first week or two--even to the point that they suggest using only a red light to examine the jars for growth and/or contaminants. The book also suggests NO air exchanges during this initial growth phase. I guess you could leave the lids loose like I suggested, but leave the lid on the box. Oh, by the way, in "The Botany and Chemistry of the Hallucinogens" by Schultes and Hoffman, they say that the medium adult oral dose is 4-8 mg psilocybin. And that dried 'shrooms contain 2 to 4 percent psilocybin--but this was from a sample of Psilocybe mexicana, and i think P. cubensis may be more potent. They also mention something else that's interesting...They say that psilocybin and psilocin are present in equal amounts in fresh 'shrooms, AND that psilocin is something like 1.4 times as psychoactive as psilocybin. Given the fact that psilocin is sensitive to oxidation, and breaks down upon drying (i suppose), this seems like a probable reason that fresh ones are so much more potent than dried ones. I have recently discovered a method of drying 'shrooms without heat, which may help them to retain a potency level similar to fresh ones, although I haven't tried any of the 'shrooms which I have dried by this method so I don't know for sure that this is true. What I do is cover the bottom of a shallow baking dish with a layer of uncooked (dry) rice--usually the rice that was left over in the bag from the initial start-up of the procedure. Then I place a clean paper towel over this layer of rice and place freshly harvested mushrooms on top of the paper towel. Then I cover the dish with another clean paper towel and place the dish in my refrigerator. I find that the rice absorbs all the moisture from the 'shrooms, and they are completely dried within a week. Be careful not to pile the fresh mushrooms on top of one another in the dish--spread them out directly on the paper towel or they may not dry, this creates the possibility of them getting moldy, which will RUIN them! Of course, if your refrigerator is unusually humid, the 'shrooms may take longer to dry out, if at all. Here is something else which may be helpful. Taken without permission from Paul Stamets' book, "The Mushroom Cultivator". (parentheses are comments from the author of this file.) PARAMETERS FOR OPTIMAL GROWTH (adhere to these as much as you feel comfortable with.) (Like I said before, I have obtained satisfactory) (results by keeping the jars on a closet shelf from) (start to finish. But trying to follow these guide-) (lines will certainly lead to better crop yields.) SPAWN RUN: (1st stage of growth) Relative Humidity: 90% Substrate Temp.: 84-86 degrees F.(Thermal death limits at 106 deg. F.) Duration: 10-14 days. CO2: 5000-10000 ppm Fresh Air Exchanges: 0 per hour. Light: Incubation in total darkness. PRIMORDIA FORMATION: (pinhead formation) Relative Humidity: 90+% Air Temperature: 74-78 degrees F. Duration: 6-10 days. CO2: less than 5000 ppm. Fresh Air Exchanges: 1-3 per hour. (but rememeber this air MUST be free of) (contaminants such as dust.) Light: Diffuse natural or exposure for 12-16 hours/day of grow-lux type fluorescent high in blue spectra at the 480 nanometer wavelength. (I find that a regular fluorescent works fine, but I do try to let my jars get some natural sunlight whenever possible--making sure, of course, that the jars don't get too warm.) CROPPING: Relative Humidity: 85-92% Air Temperature: 74-78 degrees F. CO2: less than 5000 ppm. Fresh Air Exchanges: 1-3 per hour. (but be careful not to

contaminate 'em!) Flushing Pattern: Every 5-8 days. (this means a new crop or "flush" of) (shrooms should appear every 5 -8 days.) Harvest Stage: When the cap becomes convex and soon after the partial veil ruptures. Light: Indirect natural or same as above. (hint: use same as above.) Moisture Content of Mushrooms: 92% water, 8% dry matter. P. cubensis have up to 1% psilocin and/or psilocybin per dried gram. (I would estimate approx. double that for fresh 'shrooms) A quote I recently saw from the Oss & Oeric book reported that a 10 - 12 milligram dose of psilocybin is contained in about .5 grams of dried shrooms (approx. 50 grams fresh weight). However, 10-12 mg is a HEAVY dose, and it's ALWAYS best to start with smaller doses--you can always take more the next time you trip. I would recommend then, that you cut this dose in half. The Oss & Oeric book reports that 2 - 3 dried mushrooms contains approx. 4 mg of psilocybin. For fresh 'shrooms, I think a good dose to start with would be 3 medium-sized shrooms. What's "medium-sized"? Well, I don't know-- but let's say it's one with a stem that's about 3 inches long and almost as thick as a drinking straw, with a cap that's about the same diameter as a penny. Remember when experimenting with dosages, esp. if you haven't tried fresh ones before, that it usually takes at least 15 minutes before you notice any effects at all. If the effects don't seem to be very strong, even after 30 minutes or an hour, I would still advise against taking more. I think one of the dumbest things trippers do is to try and strengthen their current trip by taking more. That's just asking for trouble in the form of an overwhelming/bad trip. Besides, your judgement probably isn't that great in that buzzed state. I wish good journeys to you all...